STATE OF MISSOURI

# DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

# MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

| | |
|---|---|
| Permit No. | MO-0004774 |
| Owner: | BP Products North America, Inc. |
| Address: | 801 Warrenville Road, Lisle, IL 60532 |
| Continuing Authority: | Same as above |
| Address: | Same as above |
| Facility Name: | BP Products North America, Inc. Former Amoco Sugar Creek Facility |
| Address: | 1000 North Sterling, Sugar Creek, MO 64054 |
| Legal Description: | See page 2 |
| Receiving Stream: | See page 2 |
| First Classified Stream and ID: | See page 2 |
| USGS Basin & Sub-watershed No.: | (10300101-050003) |

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

## FACILITY DESCRIPTION

Outfalls #001 - #004, #006, #008 & #009 – Stormwater runoff/former refinery – SIC #5171
These outfalls may also contain groundwater seepage and overflow from stormwater basins caused by precipitation events.
Flow is dependent on storm water event.
Design flow see page 2.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

January 10, 2003
Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

January 9, 2008
Expiration Date

Jim Hull, Director of Staff, Clean Water Commission

MO 780-0041 (10-93)

FACILITY DESCRIPTION (continued)

Outfall #001
Design Flow is 4.8 MGD.
Legal Description: SW ¼, SW ¼, Sec. 22, T50N, R32W
Receiving Stream: Missouri River (P)
First Classified Stream and ID: Missouri River (P) (00356)

Outfall #002
Design flow is 354 MGD.
Legal Description: NE ¼, NE ¼, Sec. 28, T50N, R32W
Receiving Stream: Missouri River (P)
First Classified Stream and ID: Missouri River (P) (00356)

Outfall #003
Design flow is 8.3 MGD.
Legal Description: SE ¼, SE ¼, Sec. 29, T50N, R32W
Receiving Stream: Rock Creek (U)
First Classified Stream and ID: Blue River 3 (P) (00417)

Outfall #004
Design flow is 2.9 MGD.
Legal Description: NE ¼, SW ¼, Sec. 28, T50N, R32W
Receiving Stream: Blue River 3 (P)
First Classified Stream and ID: Blue River 3 (P) (00417)

Outfall #006
Design flow is 2.6 MGD.
Legal Description: SE ¼, SE ¼, Sec. 28, T50N, R32W
Receiving Stream: Sugar Creek (U)
First Classified Stream and ID: Sugar Creek (U)

Outfall #008
Design flow is unknown, discharges only in rare events.
Legal Description: SW ¼, SW ¼, Sec. 28, T50N, R32W
Receiving Stream: Sugar Creek (U)
First Classified Stream and ID: Sugar Creek (U)

Outfall #009
Design flow is2.1 MGD.
Legal Description: NW ¼, SW ¼, Sec. 28, T50N, R32W
Receiving Stream: Sugar Creek (U)
First Classified Stream and ID: Sugar Creek (U)

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS



The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

| OUTFALL NUMBER AND EFFLUENT PARAMETER(S) | UNITS | FINAL EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|
| | | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Outfalls #001, #002, #006 & #009 | | | | | | |
| Flow | MGD | * | | * | twice/year May & October | 24 hr. estimate |
| Biochemical Oxygen Demand$_5$ | mg/L | 45 | | 30 | twice/year May & October | ** |
| pH – Units | SU | *** | | *** | twice/year May & October | grab |
| Total Petroleum Hydrocarbons | mg/L | 10 | | 10 | twice/year May & October | grab |
| Phenolic Compounds | mg/L | 0.75 | | 0.35 | twice/year May & October | ** |
| Total Chromium | mg/L | 1.0 | | 0.75 | twice/year May & October | ** |
| Total Organic Carbon | mg/L | 130 | | 110 | twice/year May & October | ** |
| BETX**** | mg/L | 0.75 | | 0.75 | twice/year May & October | grab |
| Benzene | mg/L | 0.05 | | 0.05 | twice/year May & October | grab |
| Ethylbenzene | mg/L | * | | * | twice/year May & October | grab |
| Toluene | mg/L | * | | * | twice/year May & October | grab |
| Xylene | mg/L | * | | * | twice/year May & October | grab |
| Methyl Tertiary Butyl Ether | mg/l | * | | * | twice/year May & October | ** |
| Lead, Total Recoverable | µg/L | 150 | | | twice/year May & October | ** |

MONITORING REPORTS SHALL BE SUBMITTED SEMI-ANNUALLY; THE FIRST REPORT IS DUE April 28, 2003. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

## B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS



The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

| OUTFALL NUMBER AND EFFLUENT PARAMETER(S) | UNITS | FINAL EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|
| | | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Outfalls #003, #004 & #008 | | | | | | |
| Flow | MGD | * | | * | twice/year May & October | 24 hr. estimate |
| Biochemical Oxygen Demand$_5$ | mg/L | 45 | | 30 | twice/year May & October | ** |
| pH – Units | SU | *** | | *** | twice/year May & October | grab |
| Total Petroleum Hydrocarbons | mg/L | 10 | | 10 | twice/year May & October | grab |
| Phenolic Compounds | mg/L | 0.75 | | 0.35 | twice/year May & October | ** |
| Total Chromium | mg/L | 1.0 | | 0.75 | twice/year May & October | ** |
| Total Organic Carbon | mg/L | 130 | | 110 | twice/year May & October | ** |
| BETX**** | mg/L | 0.75 | | 0.75 | twice/year May & October | grab |
| Benzene | mg/L | 0.05 | | 0.05 | twice/year May & October | grab |
| Ethylbenzene | mg/L | * | | * | twice/year May & October | grab |
| Toluene | mg/L | * | | * | twice/year May & October | grab |
| Xylene | mg/L | * | | * | twice/year May & October | grab |
| Methyl Tertiary Butyl Ether | mg/l | * | | * | twice/year May & October | ** |
| Lead, total recoverable | ug/l | 150 | | | Twice/year May and October | grab |

MONITORING REPORTS SHALL BE SUBMITTED SEMI-ANNUALLY; THE FIRST REPORT IS DUE April 28, 2003. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

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## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS



The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

| OUTFALL NUMBER AND EFFLUENT PARAMETER(S) | UNITS | FINAL EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|
| | | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| TERMINAL TANK AREA (Note 1) | | | | | | |
| Total Suspended Solids | mg/L | 85 | | 65 | Every discharge | grab |
| pH – Units | SU | *** | | *** | Every discharge | grab |
| Total Petroleum Hydrocarbon | mg/L | 10 | | 10 | Every discharge | grab |
| Total Organic Carbon | mg/L | 130 | | 110 | Every discharge | grab |
| BETX**** | mg/L | 0.75 | | 0.75 | Every discharge | grab |
| Benzene | mg/L | 0.05 | | 0.05 | Every discharge | grab |
| Ethylbenzene | mg/L | * | | * | Every discharge | grab |
| Toluene | mg/L | * | | * | Every discharge | grab |
| Xylene | mg/L | * | | * | Every discharge | grab |
| Methyl Tertiary Butyl Ether | mg/L | * | | * | Every discharge | grab |
| Lead Total Recoverable | µg/L | 150 | | | Every discharge | grab |

MONITORING REPORTS SHALL BE SUBMITTED SEMI-ANNUALLY; THE FIRST REPORT IS DUE April 28, 2003. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

## B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** A composite sample made-up from a minimum of four grab samples collected every hour after the first sample, during a storm of longer duration than four hours. The first sample is to be taken during the first 15 minutes of flow, if feasible, but no later than the first hour.
*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
**** Total BETX shall be measured as the sum of Benzene, Ethylbenzene, Toluene and Xylene.

Note 1: All discharges must meet established permit limits. Water that has accumulated in the tank areas must be analyzed for possible contamination. When the presence of contamination exceeds the permitted limits, the storm water shall receive appropriate treatment before release or taken to a permitted treatment facility if it does not meet limits. If the accumulated rainfall is sufficient to endanger the electrical equipment or cause possible tank flotation, accumulation of storm water may be released before sample results are available. If the discharge fails to meet the permit limits, then the facility must follow Special Condition #9.

C. SAMPLING REQUIREMENTS

A composite sample made up from a minimum of four grab samples collected every hour after the first sample, during a storm of longer duration than four hours. The first sample is to be taken during the first 15 minutes of flow, if feasible, but no later than the first hour

D. SPECIAL CONDITIONS

1. The permittee is responsible for the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 180 days and implemented within 360 days of permit issuance. The SWPPP must be kept on-site and a copy shall be sent to the DNR's Water Pollution Control Program for review and approval. The permittee shall select, install, use, operate and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

   Storm Water Management For Industrial Activities, Developing Pollution Prevention Plans and Best Management Activities, (Document number 832-R-92-006) published by the United States Environmental Protection Agency (USEPA) in September 1992.

   The SWPPP must include the following:

   (a) A listing of Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water.

   (b) A narrative explaining how RCRA and CERLA requirements for this type of operation are being met.

   (c) A schedule for implementing the BMPs.

   (d) The SWPPP must include a schedule for the monthly site inspections and a brief written report. The inspections must include observations and evaluation of BMP effectiveness, deficiencies, and corrective measures that will be taken. Deficiencies must be corrected within seven days. Inspection reports must be kept on site with the SWPPP. These must be made available to DNR personnel upon request.

   (e) A provision for designating an individual to be responsible for environmental matters.

   (f) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of DNR.

2. The permittee is responsible for the development of an annual summary operating report that must be submitted by October 28 of each year (not withstanding any reporting requirements contained in the attached "standard conditions"). This report shall detail any unusual occurrences such as spills, tank failures or overflows, ruptured piping, fishkills, fire fighting activities, or other upset which resulted in the loss of product. Product includes, but is not limited to fuels, paints, or other chemicals. The report shall also detail any remedial work undertaken to recover product or clean up the site. The report must also indicate if nothing unusual has occurred.

D. SPECIAL CONDITIONS (continued)

3. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

4. Within thirty (30) days of permit issuance, permittee shall construct a permanent marker or monument at or near all sampling locations. These markers shall have displayed appropriate instructions that indicate where the sample is to be taken.

5. There shall be no release of Polychlorinated Biphenyl compounds (PCBs) to waters of the state at or above the level of quantification currently defined as 0.5 ug/l or 0.5 ppb.

6. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

7. Report as no discharge when a discharge does not occur during the report period.

8. Under the Final Administrative Order ON Consent, Docket Number VII-89-H-0028, between Amoco Sugar and the United States Environmental Protection Agency, Amoco has conducted several investigative and remedial activities at the site. As part of the requirements of the Order, Amoco will be conducting additional investigative and remedial work in the future. Based on the findings of any additional work, this permit may be reopened and modified or alternatively revoked and reissued to address new data, as it becomes available.

D. SPECIAL CONDITIONS (continued)

9. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
   (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
   (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   (d) Waters shall be free from substances in sufficient amounts to result in toxicity to human, animal, or aquatic life;
   (e) There shall be no significant human health hazard from incidental contact with the water;
   (f) There shall be no acute toxicity to livestock or wildlife watering;
   (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200 RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

10. Reporting of effluent violations. If any of the sampling results from any sampling locations show any violation of the permit discharge limitations, written notification shall be made to the Department of Natural Resources within five (5) days of notification of analytical results. Notification shall indicate the date(s) of sample collection, the analytical results, and permit number, and shall include a statement concerning the revisions or modifications in management practices that are being implemented to address the violation of the limitation that occurred.

    After a violation has been reported, a sample of storm water runoff resulting from the next rainfall greater than 0.1 inches shall be collected from the location(s) at which the violation occurred. Analytical results of this sample shall be submitted in writing to the Department of Natural Resources (this paragraph supercedes Part I, Section B: e. A. Noncompliance Notification).

11. Records Retention and Reporting. Monitoring reports shall be submitted within 28 days after the end of each month. All sampling data shall be maintained for five (5) years and shall be supplied to the Department of Natural Resources upon written request (supercedes Part I Section A:7 Records Retention).

12. All paint, solvents, petroleum products and petroleum waste (except fuels), shall be stored so that these materials are not to storm water. Spill prevention, control and/or management shall be sufficient to prevent any spills of these pollutants from entering waters of the state. Any contaminant system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater

13. Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored or used for maintenance, cleaning or repair shall be managed according to the provisions of RCRA and CERCLA.

14. All storm water from the Terminal Tank area will be discharged to the sanitary sewer. Water from the dike area may be discharged as long as it meets the limits as stated in the Tank area parameters.

FACT SHEET
BP Products North America, Inc. Former Sugar Creek Refinery
NPDES No. MO-0004774

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. NPDES permits in Missouri are issued by the Director of the Department of Natural Resources under the approved NPDES program, operating in accordance with the federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

BP Products North America, Inc. has applied for an NPDES permit to allow the discharge of storm water from the former Sugar Creek Refinery into waters of the state.

The refinery is no longer in service, although the site is still used for marketing functions. Equipment and structures at the refinery are being dismantled. All outfalls are for Storm water only. The Single Waste Management Unit has been closed following a closure plan approved by the Hazardous Waste Management Program. Discharges are into Rock Creek, Sugar Creek and Missouri River.

Rock Creek and Sugar Creek are unclassified; the Missouri River is listed as a class P stream in the vicinity of the refinery, as stated in the Water Quality Standards, 10 CSR 20-7.031. The Missouri Water has a 7-day Q10, for the section of the Missouri River in the vicinity of the refinery, of 10,000 cfs. The Water Quality Standards list this section of the Missouri River as supportive of aquatic life, irrigation, livestock and wildlife watering, protection of warm water aquatic live, boating and canoeing, drinking water supply and industry.

This is a reissuance of an expired NPDES permit. To identify any possible storm water contamination by petroleum; Benzene, Ethylbenzene, Toluene, Xylene, lead, and total BETX were added to the permit. Best Professional Judgement (BJP) was used to determine the limits for Benzene, Ethylbenzene, Toluene, Xylene, lead, and total BETX.

Oil and Grease was replaced by Total Petroleum Hydrocarbons (TPH), since this facility is storing finished petroleum products. The TPH limits follow the ones set in the following general permits MOG35 "Storm Water Discharges from facilities with above ground storage tanks", MOG67 "Hydrostatic testing of Petroleum-related Oil and Gas Pipelines and Storage Tanks", and MOG94 "Wastewater from Fuel Spill Clean-ups".

Since this permit is to account for BP Products North America, Incorporation's storm water contamination; Total Suspended Solids were removed due to the addition of solids by the streets of the city of Sugar Creek and private property. Best Management Practices must be developed and implemented to address solids in the storm water.

To address possible lead contamination, lead has been added to all Outfalls.

A copy of the public notice and this fact sheet are being forwarded to the applicant, the District Corps of Engineer of the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the Missouri Department of Conservation. Other interested individuals may obtain a copy on request by writing to the address listed below for comment letters.

The proposed determinations of the draft permit are tentative pending the public notice process. Persons wishing to comment upon or object to the proposed determinations are invited to submit them in writing to: Missouri Department of Natural resources, Division of Environmental Quality, (Missouri Clean Water Commission) P.O. Box 176, Jefferson City,

Missouri 65102, ATTN: Phil Schroeder, Chief Permit Section. Please include the application number of the draft permit in all comment.

WATER QUALITY STANDARDS REVIEW SHEET

Facility Name: BP Products North America, Inc. NPDES #: MO-0004774

Design Flow: variable, (stormwater)

Receiving Stream: Sugar Creek, Rock Creek, and Missouri R.

Stream Class: Sugar Creek--unclassified;
old Mo. R. meander carries Rock Cr. flow; currently unclassified
Missouri R---Class P

Beneficial Uses: No uses for Rock Creek and Sugar Creek
Missouri R.----aquatic-life protection (general warm-water fishery); livestock, wildlife watering; drinking-water supply; irrigation; industrial; boating.

Flow: 7Q10:
"0" for Rock Cr. and Sugar Cr.; 10,000 cfs for Missouri R.

WLAS "Level: 1 2 3 4

The permit is for stormwater discharges **only**. The volume and duration of discharge will vary and make exact dilution calculations impossible; however, the immediate receiving streams are unclassified and the Missouri River provides much dilution---therefore, no water quality impact is expected from the parameters as currently limited:

Total BETX 0.75 mg/l
**Benzene 0.5 mg/l**
O&G = 15 mg/l
TOC = 110 mg/l
NFR = 65 mg/l
BOD = 30 mg/l
phenolic compounds = 0.35 mg/l
Cr = 0.75 mg/l

Reviewer: RG Date: Section Chief: JH

Changes:

The permit is for storm water flows only.